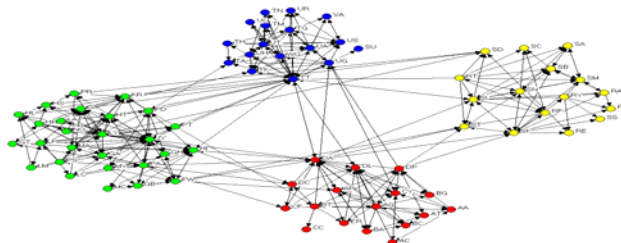


Building a Networked Organization: Restructuring the IT Department at ABC Consulting (A)

Rob Cross

Remaining Authors Have Been Removed from the Disguised Network
Roundtable Case to Ensure Company Anonymity



Introduction

When Bob Watson, a 20-year veteran of ABC Consulting, was asked to take on responsibility for the company's information technology (IT) department, he knew it would be a significant challenge. Though a veteran of ABC, he was unfamiliar with many of the people in this globally distributed group and had little time to bring about some substantial changes within the department. Up to this point, the IT department had been geographically organized, with its staff residing in various business centers throughout the United States, Europe, and Asia. Each center acted fairly autonomously, with IT leadership reporting to regional presidents (see **Exhibit 1**). Although there had been some progress in standardizing major technology platforms across the company, there had been only limited collaboration between the various IT organizations in terms of people, processes, and technology. As a result, internal customers received varying levels of service, application functionality, and costs for technical solutions and applications provided by the IT organization.

Although this structure had been acceptable when ABC was a smaller organization, with growth and other shifts in the economy, it was clear that some changes needed to be made. Market trends suggested that information technology would become an increasingly substantial component of ABC's revenue, as customers demanded more complex solutions and real-time collaboration tools. Furthermore, the company anticipated rapid growth in non-U.S. revenue as increasingly advanced technical solutions were applied to new global markets. To be competitive in both the quality and cost of solutions, the IT organization had to improve its ability to transfer technical solutions and expertise on a more standard basis around the world.

Unfortunately, this was only one part of the challenge that Watson faced. External benchmarking studies showed that the total cost of IT at ABC was higher than industry averages. As he stepped into his new role, senior management told Watson that IT was too expensive and had been slow to develop the infrastructure necessary to meet changing market demands. These executives demanded more innovation, creativity, and collaboration—and, of course, they needed it rapidly and at low cost.

In 2003, Watson recognized the need to create a unified organization and governance structure for the IT function. iNet, the name of the reorganized IT function, effectively consolidated each of the regional IT groups in the Americas, Europe, and Asia into a single entity and also combined expertise for the delivery and standardization of engineering and business solutions around the world (see **Exhibit 1**). Regional IT groups were reorganized along functional lines, and strategies were developed to leverage lower-cost labor markets in New Zealand and India for networking and application development. The new organization was to be in place by the start of 2004, and Watson needed some way to ensure that employees began to collaborate across functional, hierarchical, and geographic lines.

Background

ABC was an engineering consulting firm that was considered a global leader in the areas of water, hydropower, and remediation. In 2003, the organization realized more than \$975 million in revenue and had over 6,000 specialists in more than 36 countries. ABC service lines

included environmental engineering, power generation, facilities development, construction, multi-sector program management, asset management, government relations, and applied science. These services were provided to a wide array of institutions, including municipalities, government agencies, multinational companies, industrial concerns, and military organizations worldwide. For example, at the time of this case, ABC was managing the design and implementation of a capital improvement program to expand the water and wastewater infrastructure serving 7 million residential and 200,000 business customers in northwest England. This five-year, \$3.3 billion endeavor was the largest water industry program in Europe. On a different note, ABC was also helping the National Aeronautics and Space Administration (NASA) decommission, decontaminate, and dismantle a former research reactor site at the Plum Brook Station Reactor Facility in Sandusky, Ohio. These technically demanding projects represented just two examples out of literally hundreds of projects managed by ABC on an annual basis.

Traditionally, ABC was considered one of the world's top three experts on power, water, and wastewater issues. The firm had designed, built, financed, and managed many of the largest and most technologically advanced projects in the world, such as the Karaji Dam, which supplies fresh water to the city of Teheran; the Derbendi Khan Dam, in Iraq, which at the time was the highest rock-fill dam in the world; and the 5 de Noviembre Hydroelectric Project, which included the first large underground power plant in the Western Hemisphere. These efforts frequently won the firm global awards and recognition, including 2002 honors from the American Academy of Environmental Engineers and the 2002 Hans Albert Einstein Award.

ABC was also well known for developing and applying advanced technology to projects and was considered an industry leader in several areas, from proprietary software and process automation to three-dimensional CAD and enterprise solutions. For example, ABC applied 3-D CAD technology in the design process of expanding a wastewater treatment plant in Utah. The 3-D modeling of the plant allowed the customer to visualize the proposed design and make changes directly to the model. This sped up the approval process and eliminated the need for multiple, expensive design reviews. It also helped identify conflicts that might have driven costly changes during construction. The system tracked all technical information associated with equipment, instruments, valves, and pipes. Whenever changes were made, all drawings were automatically updated. Equipment data sheets were also printed directly from the database for incorporation into the project specifications, all of which greatly streamlined the design process. This innovative use of 3-D CAD technology reflects just one example of many ways that ABC was attempting to differentiate through the use of technology in projects around the globe.

The iNet organization was critical to the successful deployment of many of these advanced IT capabilities. Specifically, iNet was charged with enabling improvements to staff productivity, business infrastructure, and business efficiency through the effective implementation and use of technology. In this role, iNet was required to interface with essentially every employee in the company in deploying, linking, and maintaining the personal computers, networking infrastructure, and knowledge applications that ABC professionals used to serve their external clients. Improving work and collaboration among these groups played a critical role in standardizing the level of service, reducing overhead costs, and exploiting new revenue opportunities around the world.

The new iNet organization was composed of three functional areas (see **Exhibit 1**):

- **Global Services Unit:** This function was to provide basic IT services, including messaging, network management, asset management, and end-user support (help desk), to all business units worldwide. Global teams were formed around each of these core areas to deliver services consistent with pre-negotiated service levels. Service-level agreements (SLAs) essentially formed a contract between iNet groups and business units and included parameters such as network uptime, responsiveness, cost of services, and customer satisfaction. SLAs provided the basis for iNet efficiencies and harmonization of services around the world but presented challenges due to the business units' varying requirements and ability to pay. For example, the Asia organization historically did not have the revenue base to support advanced solutions such as asset management in the same way as the United States. As a result, efforts were being made to reduce costs by moving some commodity-type functions, such as global end-user support, to New Zealand, where labor rates were significantly lower.
- **Global Solutions Delivery:** This function was organized to develop, support, and maintain enterprise applications for areas such as finance and human resources, knowledge management, and engineering design. One major initiative of this group was to upgrade and implement the enterprise resource planning (ERP) application, JD Edwards, on a global basis (upgrading the application used in the United States and then implementing it in Europe and Asia). It served as the basis for business process standardization around the world and presented a significant challenge in terms of knowledge transfer and change management. The group was also expected to leverage an existing ISO9000-compliant application development group in Pune, India, for future business application development. This presented challenges similar to other offshoring initiatives. First, it was a challenge to convince business unit managers that their development work could be performed at significantly lower labor rates while meeting the same standards of quality. Second, coordination, communication, and project management skills needed to be improved to offset the geographical and cultural differences.
- **iNet Strategy and Administration:** Finally, the strategy and administration function was established to provide direction and ensure integration among iNet employees. In addition to strategy definition and standard setting, this group included a project management office (PMO) function charged with establishing and monitoring compliance with project management methodologies; managing very large, complex projects; and administering and dispensing fees for global IT services.

The iNet reorganization represented a substantial challenge for ABC. It required people from different offices to align with a given function and begin to collaborate well with new colleagues. In fact, iNet was the first organization at ABC to be truly managed and governed on a global basis. ABC had a strong cultural identity built upon the business unit and regional autonomy. That identity had begun to create inefficiencies, especially in staff functions such as HR, finance, and IT. As a result, the iNet model served as a roadmap for other staff functions in

the future. The iNet reorganization required people in these new functions to collaborate across groups as well. This collaboration needed to be effective and virtually transparent to end-users despite the physical distance and time zones separating these groups.

In the new iNet organization, Watson would have six direct reports. Three directors who managed the functional expertise groups plus a director in each region (Americas, Europe, and Asia), each of whom also had a dotted-line relationship with a regional president. SLAs would govern the scope, level, and pricing of services provided to each business unit to establish an internal market for services, with regional IT directors acting essentially as contract managers. Prior to implementing the new organization, Watson underwent a lengthy interview process to identify new leadership from the existing staff. Two of the three directors were located in Denver, with the GSU director located in the United Kingdom. Each regional IT director was located with his or her operating unit in Denver, London, and Christchurch, New Zealand.

At the time of this case, iNet included 185 people located in 27 offices in 11 countries. Roughly 105 employees, a little over half of the group, were located in the United States, with primary resource centers in Denver, Pasadena, Calif., and Chicago. Average tenure was two to five years, with slightly higher turnover in the United States. The culture at ABC was relationship-based. Oddly enough, this in itself created a difficult challenge in the reorganization. Often, internal customers from business units had developed strong personal relationships with IT professionals, whom they turned to for all of their technical needs. Although the realignment of iNet would help ensure that the best expertise and lowest cost were delivered to each business unit, it also required people in business units to begin working with technical people they did not know. Developing trust in these relationships and the IT organization overall was an important objective for Watson.

Watson thought that an organizational network analysis (ONA) would provide a baseline view at the point that the new organization was implemented. He needed a quick x-ray of the inner workings of the group in order to assess risks and potential trouble areas, as well as identify people who already worked collaboratively and could serve as change agents in the new organization.

A Network View of the iNet Group

The SNA project was initiated in August 2003 to assess overall network connectivity as well as relationships across geographies and functional areas. The survey included only those individuals in the new iNet organization and focused primarily on information flow within the network as well as people's reliance on technical sources of information such as databases. The primary objectives of the project were the following:

- Identify ways to improve collaboration within the iNet organization
- Better understand ways to improve the effectiveness of the iNet senior management team
- Identify networking strengths and areas for improvement

An Excel-based survey was developed to gather information from the 185 iNet employees. ABC anticipated that there would be some key splits in the network based on employees' geographic locations, their tenure at ABC, and their level in the organization. These splits guided the design of the survey instrument and helped in the analysis of the results. The survey was sent to each iNet employee, along with a brief memo from Watson describing the objectives, survey instructions, and an assurance of confidentiality. Respondents were given 10 business days to complete the survey, and two follow-up reminders were sent out to ensure a high response rate. Through this process, a 90 percent response rate to the survey was obtained. An abbreviated example of a network question is shown in **Appendix A**.

Several themes emerged in the SNA. ABC clearly expected to see a certain level of fragmentation in the network because prior to the reorganization each geographic unit had functioned independently. In the past, a high degree of collaboration had not been seen as a critical success factor, and few, if any, informal processes, meetings, or forums had served to encourage more personal connections. Changing the way people worked together was a significant challenge for the group. In addition, some unanticipated themes emerged that showcased the way people preferred to collaborate and with whom.

Sparse and fragmented information network

On average, each iNet employee was 3.2 steps away from every other iNet employee. They were less connected than Watson had hoped, as he would have preferred to see the number closer to two steps. He felt that iNet employees would reach out to a friend for information and possibly turn to a friend of a friend (two steps in the information seeking process); however, moving beyond this substantially decreased the likelihood that employees would get the information they needed or that the people they sought out would respond in a helpful fashion. In fact, a quick review showed that only 6 percent of possible connections (if everybody were connected to everyone else) actually existed in this group. And as the diagram in **Exhibit 2** shows, these connections were not distributed evenly.

As network diagrams move beyond 30–40 people, they can become difficult for the human eye to interpret. Quantitative assessments can help determine the extent to which cross-location collaboration is occurring. The table found in **Exhibit 3** shows the percentage of information relationships that existed within and between each location out of 100 percent if every person were collaborating either within or across these units. That is, if everybody in Denver were collaborating with each other, we would see 100 percent in the top left-hand cell. This is not the case, however, as we see that only 20 percent of connections exist. Watson clearly did not want to see high numbers in all of these cells—everybody communicating all of the time was a waste and would bog the organization down—but he did want to see specific points of integration in this table where iNet’s strategy and future success demanded integration.

This table shows information-seeking relationships from row to column and allows one to determine if there are major discrepancies between groups in the table. For example, here we see that Pasadena has 8 percent (out of a possible 100 percent) of the information-seeking relationships with Denver. In contrast, Denver has 6 percent (out of a possible 100 percent) of the information-seeking relationships with Pasadena. This specific intersection in the network was not a cause for concern, but other discrepancies existed in the table that did pose questions for Watson.

Of course percentages in **Exhibit 3** are affected by group size. It is much easier for a group of 10 people to be fully connected than a group of 100 people. So comparing numbers in a table such as this always needs to be done with an eye as to group size as well as ideal network patterns (as established by strategy). Nevertheless, the diagonal of the table reveals some points of interest in terms of differences in patterns of collaboration.

Perhaps even more important, however, was a review of the connectivity between sites. For example, the highest level of internal connectivity existed in Walnut Creek (48 percent), a group that primarily performed asset management and procurement services for business units in the United States. Although this represented a positive theme for that location internally, it created some concerns in terms of external connectivity. The group’s relatively low level of collaboration with others even in the same country suggested an unhealthy degree of isolation and over reliance on itself. A real question existed about this group’s ability to support internal customers if group members were not interacting with the business units in order to understand

and meet their requirements. Watson validated that this was indeed the case and was clearly concerned with the issue.

Similarly, there was a lack of communication between Denver and Pasadena, two substantial offices that enjoyed only minimal collaboration. This was a problem because two application development groups existed in each location, serving the same customers. Over time, it had become apparent that these groups were not providing optimal solutions to customers because they did not leverage each other's expertise. Furthermore, there were times when work was recreated because one group was not aware of the applications the other had developed. To use a small example, at one point the HR department requested a new program to process employee address changes. The Denver group approached the problem by creating a database application and workflow, unaware of standard functionality within the JD Edwards HR application managed by the Pasadena group. By not reaching out to each other, due to issues ranging from physical distance to performance metrics to incentives, the two groups were less effective than they should have been.

Finally, in terms of cross-location collaboration, a substantial problem seemed to exist with Pune and Christchurch. The SNA revealed that these two sites enjoyed the lowest levels of collaboration with all other geographical locations. If these two groups were intended to serve as service centers for ABC, then some direct intervention was needed.

Overall, both positive and negative points were found when connectivity within and across locations was examined. One of the strengths of this assessment was that it helped to pinpoint precisely where investments in collaboration would yield a benefit to ABC. Clearly, not every cell in the table needed to be well connected (or even close to 100 percent). Rather, this table revealed points in the network worth addressing. But the challenge was still to determine where to start and then what exactly to do to improve these junctures. Just implementing a collaborative technology or holding a group off-site did not precisely address issues at each juncture and so was likely to miss important issues and result in wasted energy.

Integrating expertise groups

A critical part of Watson's vision for the new iNet group was to establish expertise groups, essentially the functional areas shown in **Exhibit 1**, such as networks/servers, global end-user support, and messaging. These groups were charged with cultivating and maintaining expertise in technical areas that were critical to ABC. Each represented distinct technologies, expertise, and processes. With the transition to iNet, these groups needed to become better integrated and collaborative to maintain world-class expertise in their specific domains. For example, the networks/servers group previously reported to three different regional directors but now reported globally through a single manager. Several important projects were scheduled for 2004 that would entail the consolidation of infrastructure and support on a global basis. One major initiative involved reducing the number of servers in the United States by consolidating information on larger, more robust networks. Fewer technicians would be required in each office; capital requirements would be reduced; and end-user support on those networks would come from New Zealand at a lower cost. The change would be both challenging and stressful for

the organization. Simply changing reporting structures would not be enough to get people to work together when jobs and authority levels were at risk.

Each expertise group had a leader who faced substantial challenge in forming and ensuring seamless collaboration among her or his group. For example, Kevin, a leader placed in charge of the networks/servers group was surprised to see the pattern of connectivity outlined in **Exhibit 4**. This was obviously an important expertise group because of the new consolidation initiative. Kevin would be leading the project from New Zealand; however, the network was fragmented and connected to just a few points centered in the United States. How would Kevin now gain the confidence and respect of his group when in the past there had been so much reliance on just a few individuals? How would he bring in new players from Europe and New Zealand?

In another example, Dave would be leading the application support/development group (see **Exhibit 5**). The function was primarily located in two areas—Denver and Pasadena. There was little collaboration between the teams, although they served the same customers and even supported some of the same applications. He knew that issues had been identified regarding definition of standard application development methodologies and quality assurance procedures. Letting either group dominate the future process without developing a better understanding of individual strengths and weaknesses could breed resentment and resistance.

In order to further meet the challenge of integrating expertise groups around the world, Watson directed the development of several groups known as knowledge bases (KBs). A KB was a virtual team of people (a community) whose purpose was to network their knowledge in alignment with the strategic needs of the business. The company had made a significant investment in knowledge management systems in support of the core engineering expertise groups, and Watson knew that it was a concept that would translate well to iNet.

The KBs were intended to cut across functional and geographic boundaries, bringing together people with various levels of interest and skills. The first KBs to be established were client service management, project management, innovative technologies, and database administration. They were made up of three primary groups of people: associates, KB leaders, and the KB manager. The size of each KB varied from 10 to 30 people. Associates formed the heart of each KB community. They served on a voluntary basis and were committed to consistent participation, helped to solve problems “in the moment,” developed best practices, documented case studies, and posted research. Associates also helped others leverage iNet’s intellectual capital and supported key marketing programs and projects as requested by the business.

Overall, the expertise groups represented an important lever for developing and maintaining high-end expertise within the iNet group; however, connectivity within these groups was not what it could be yet, and this affected both the quality of solutions generated as well as the efficiency with which work was done. The solution was not immediately obvious, however. The right pattern of connectivity for each group was dictated by the expertise in that network as well as the work of the specific group. Simply imposing a mandate that forced increased connectivity in each group was not the best solution, as this would unnecessarily consume people’s time and energy. But developing a customized approach for each group was also a

difficult and time-consuming process. Several obstacles, such as varying levels of expertise, length of service, and physical dispersion, would make it difficult for people to see how their work fit together. Also cultural differences, including the real and perceived dominance of the United States in terms of setting standards, making decisions, and controlling funding, could present additional challenges.

Network rigidity

Another potential problem highlighted by the SNA was network rigidity. One of Watson's first concerns was determining whether hierarchy constrained the network. A table similar to the cross-location connections table in **Exhibit 2** assessed connectivity within and across hierarchical levels (see **Exhibit 6**). Overall, it revealed a relatively high level of collaboration among the most senior people and, more troubling, a low level of connectivity among those groups lower in the hierarchy. Although it did not appear that hierarchy was constraining collaboration in this group (i.e., people did reach up in the hierarchy for information to do their work), it was troubling to see the relative lack of connectivity among those on the front line. These were the people who most needed to share expertise to solve client problems. Also, morale could be affected if junior or particularly new people felt overly isolated.

Of course, hierarchy was not the only constraint in the network. On average, people had nine working relationships each. But the range in size of each person's network was dramatic. On the low end, several people had only one or two relationships, whereas on the high end, some people were overloaded, with more than 25 people coming to them on a frequent basis for information (see **Exhibit 7**). In fact, on reviewing the analysis, Watson remembered that one such person had just pulled three all-nighters. This employee seemed to love her work and was heavily relied on by people in the group due to her expertise. But Watson wondered how long someone could keep up a pace like that, and, more important, whether excessive reliance on a few people was good for the organization or if it created a bottleneck and made the network susceptible to their departure.

In looking at people's positions within the network, it was no surprise to Watson that another person, Louise, ranked as a highly central person. She was a technical expert in the area of networks and servers and was also seen by the more junior members as a mentor; she often "sat in" for her director when that person was away. However, Watson was concerned that Louise had not secured either a manager's or director's role in the latest reorganization. Knowing she could be a significant change agent in the new organization, Watson wondered how to help her find a suitable role that would leverage her strong skills and relationships. Alternatively, the question had to be asked: Did Louise's management style empower her people sufficiently to make decisions or did it create too much of a reliance on her?

Of course, at the other end of the spectrum, the highly peripheral people were also a concern because they represented untapped expertise. Various studies had shown that more peripheral people are less satisfied in their work and more likely to leave an organization than more-connected counterparts. As a result, Watson was very concerned with understanding and locating these people. One example of a peripheral person was Kathy, the only person supporting the ERP application, JD Edwards, in Chicago because most of her peers resided in Pasadena. The

Chicago group had been part of an organization that was acquired by ABC a few years previous. Since the merger, Kathy's boss and some of her peers had left the organization. Her new supervisor, Dan, was not surprised by the results of the analysis. Kathy had recently expressed a desire to become more integrated with the group, so now, she would report directly to a manager in Pasadena; however, Dan wondered if that would be enough to make her feel like part of the team.

Overall, it seemed that a lot could be done by focusing specifically on central and peripheral people. Again though, the challenge remained in deciding exactly what to do. Helping someone who has become overly central in a network was a markedly different challenge than drawing in peripheral people. Questions remained regarding where to invest time and effort on this front as well as about specifically what to do.

Information biases

There also appeared to be two potential learning biases in the network. First, when asked to identify all people important to them from an informational perspective, many iNet employees listed only other members of their immediate team. As outlined in **Exhibit 8a**, there were very few ties outside of the network, and this raised a potential concern about information entering the group that could help them keep abreast of industry, technical, and market trends.

Second, the group was very serendipitous in nature (see **Exhibit 8b**). When Watson looked at the nature of interactions people had with their colleagues in the group, he was surprised by the extent to which most were unplanned. Although this potentially promoted flexibility in the network, he wondered if it might preclude effective information seeking. For example, did people get locked into a specific subset of people they had come to personally know rather than reaching out to those with the most relevant expertise? How would the group successfully implement complex projects on a global basis when most information flows were so informal?

Overall, these were important issues to consider. To ensure long-term viability, information needed to flow smoothly through the network. But it was unclear the extent to which this was a problem or even how to go about addressing the issue.

Personal connectivity

Finally, Watson was also intrigued by the role his own personal network would play in helping him to execute this change program. He knew that his network provided him with critical information that he relied on to make strategic decisions. In assessing his own network (see **Exhibit 9**), Watson wondered how it would need to adjust for him to be effective as a leader in this restructured environment. Were there certain categories of people he would need to reach out to more proactively? Were there ways he would need to reassess his own network so that it extended his personal expertise and capabilities?

Next Steps at ABC

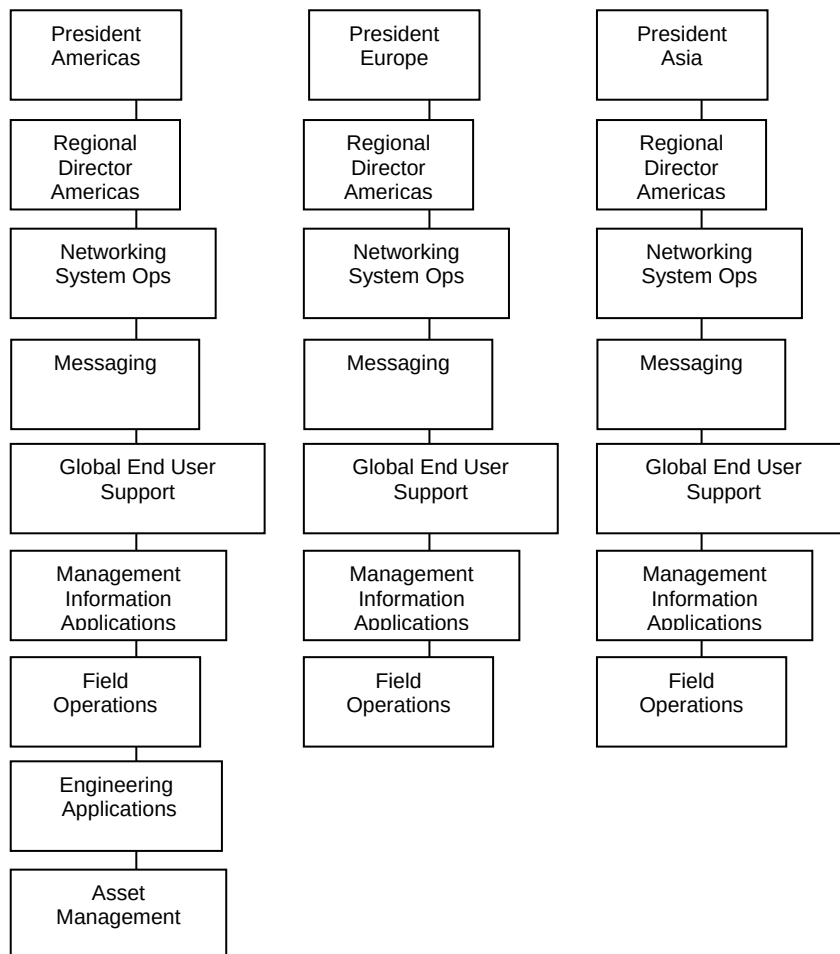
Watson considered the next steps. What should they move on first? How? What would the measures of success be?

Exhibit 1

BUILDING A NETWORKED ORGANIZATION: RESTRUCTURING IT AT ABC CONSULTING (A)

Old and New Organizational Charts for IT Department

Old Organization



New Organization

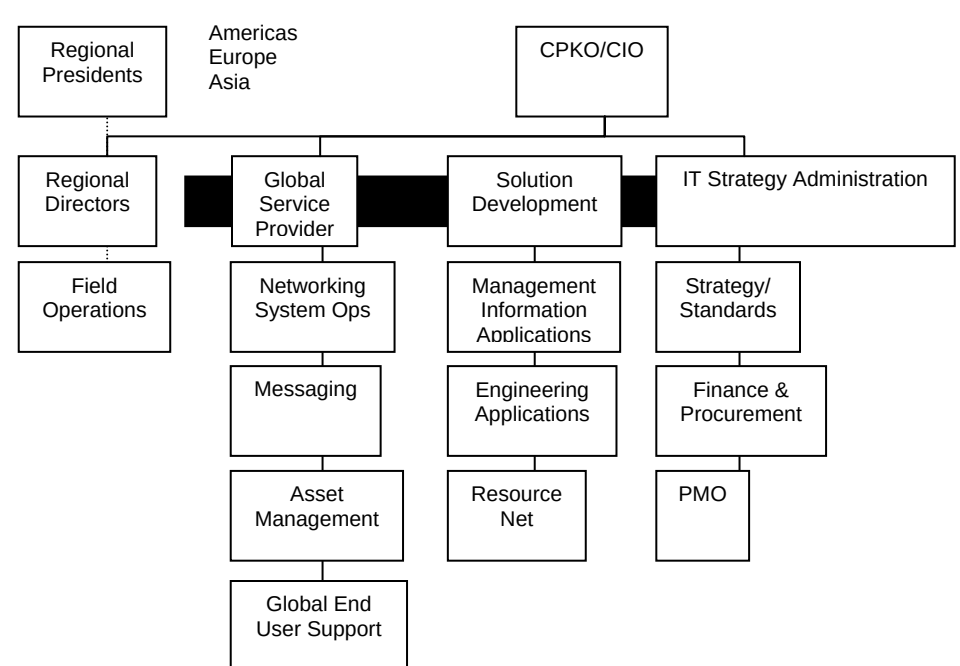


Exhibit 2

BUILDING A NETWORKED ORGANIZATION: RESTRUCTURING IT AT ABC CONSULTING (A)

Information Flow in the iNet Group at ABC

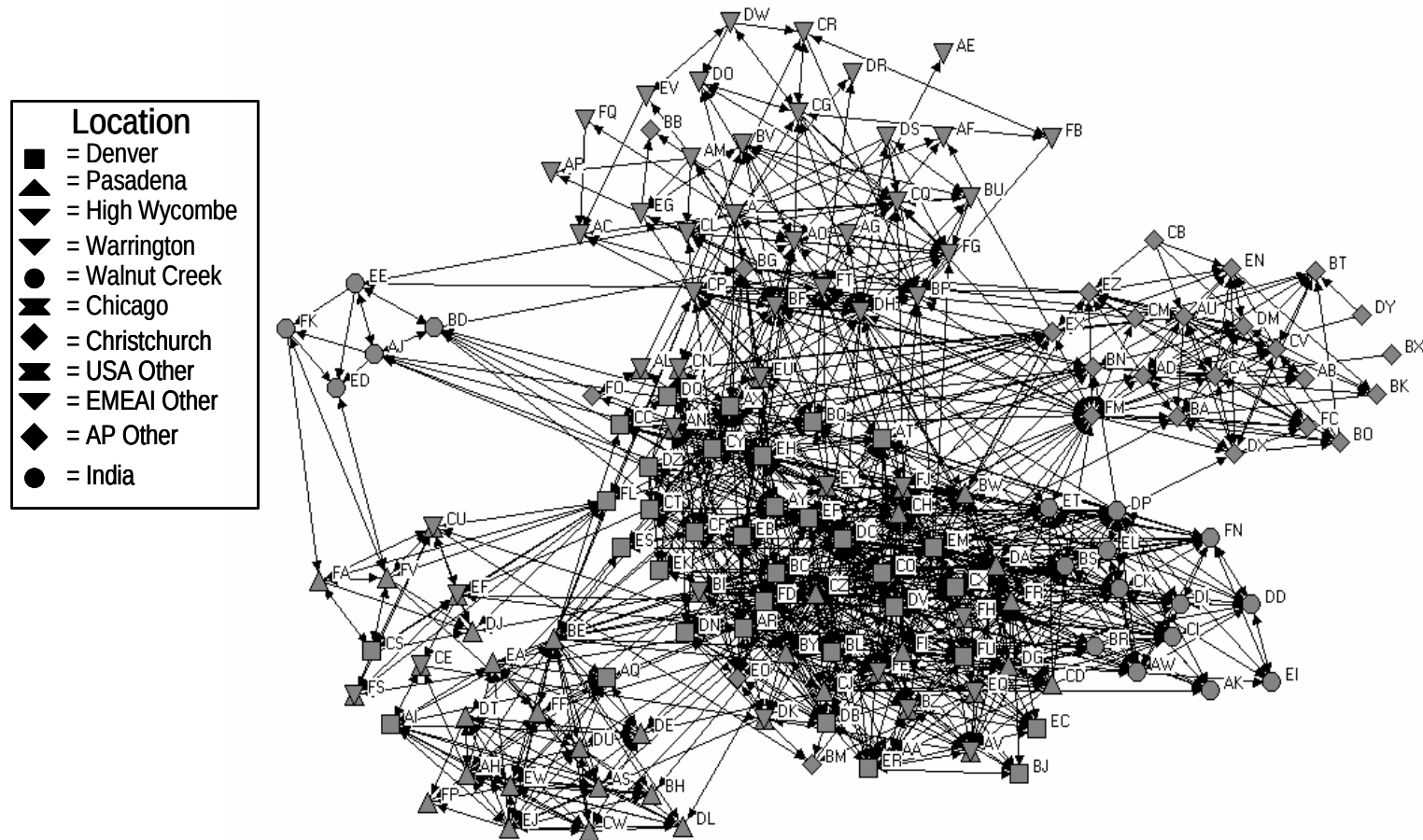


Exhibit 3

BUILDING A NETWORKED ORGANIZATION: RESTRUCTURING IT AT ABC CONSULTING (A) Percentage of Connectivity within and across Location

		Denver (34)	Pasadena (28)	H Wycombe (15)	Warrington (12)	Walnut C (13)	Chicago (11)	Christch (11)	USA (6)	EMEI (1)	AP (9)	India (5)
1	Denver	20%	6%	2%	1%	10%	12%	5%	10%	0%	0%	5%
2	Pasadena	8%	24%	0%	1%	4%	7%	2%	5%	0%	0%	1%
3	High Wycombe	3%	0%	24%	16%	0%	0%	3%	2%	0%	0%	1%
4	Warrington	1%	1%	13%	18%	1%	2%	2%	1%	8%	0%	2%
5	Walnut Creek	8%	5%	1%	0%	48%	4%	1%	1%	0%	1%	0%
6	Chicago	10%	7%	1%	2%	6%	20%	2%	3%	0%	0%	0%
7	Christchurch	2%	2%	2%	5%	1%	2%	38%	6%	0%	20%	0%
8	USA Other	9%	7%	2%	0%	4%	6%	5%	3%	0%	0%	0%
9	EMEI Other	0%	0%	20%	17%	0%	0%	0%	0%		0%	0%
10	AP Other	0%	0%	0%	1%	0%	1%	26%	0%	0%	22%	0%
11	India	2%	2%	0%	2%	0%	0%	2%	0%	0%	0%	55%

Table Interpretation

The table is read from row to column when assessing who seeks information from whom. Collaboration within locations is represented by numbers along the gray diagonal, whereas collaboration across locations is off diagonal. Each cell reflects the percent of information seeking ties out of 100% that could exist if everyone were connected to everyone else at that juncture. Since it is much easier to form connections with fewer people, locations with smaller numbers typically should have higher percentages. For example, we see that within the Warrington location, 18% of the possible collaborative relationships existed, however, in Walnut Creek there are many more relationships (48%) even though they are approximately the same size. The numbers off diagonal show that little collaboration exists across groups. For example, there is no connectivity between Pasadena and High Wycombe.

Exhibit 6

**BUILDING A NETWORKED ORGANIZATION:
RESTRUCTURING IT AT ABC CONSULTING (A)**
Percentage of Connectivity within and across Hierarchy

	Indiv Contrib (80)	Supervisor (28)	Project Mgr (10)	Manager (16)	Director (7)	Other (11)
Indiv Contributor	4%					
Supervisor	5%	9%				
Project Manager	6%	9%	12%			
Manager	6%	10%	11%	15%		
Director	3%	8%	12%	26%	67%	
Other	4%	7%	6%	7%	1%	5%

Table Interpretation

The table is read from row to column when assessing who connects to whom. For example, there is high connectivity among the Directors (67%). In addition, connectivity from Directors to Managers is somewhat high at 26%. However, there is little connectivity from Directors to Individual Contributors (3%).

BUILDING A NETWORKED ORGANIZATION: RESTRUCTURING IT AT ABC CONSULTING (A)

Central and Peripheral People in the Information-Seeking Network



Exhibit 8

**BUILDING A NETWORKED ORGANIZATION:
RESTRUCTURING IT AT ABC CONSULTING (A)**

Exhibit 8a

Lack of Reaching Outside of the Network

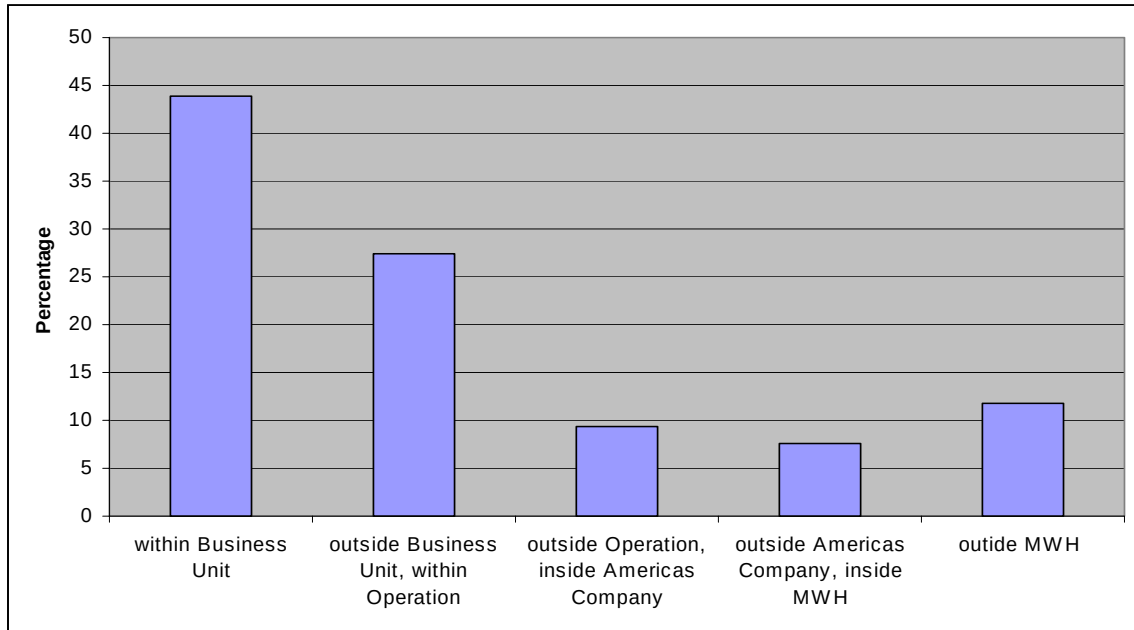


Exhibit 8b

Serendipity in Collaboration and Innovation

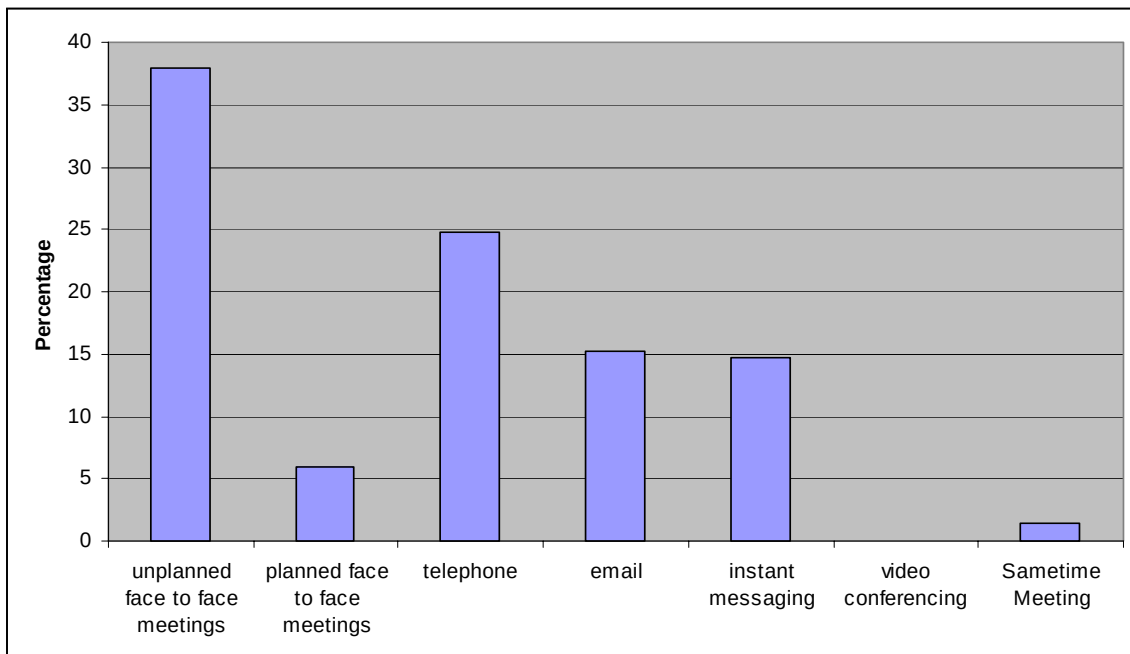
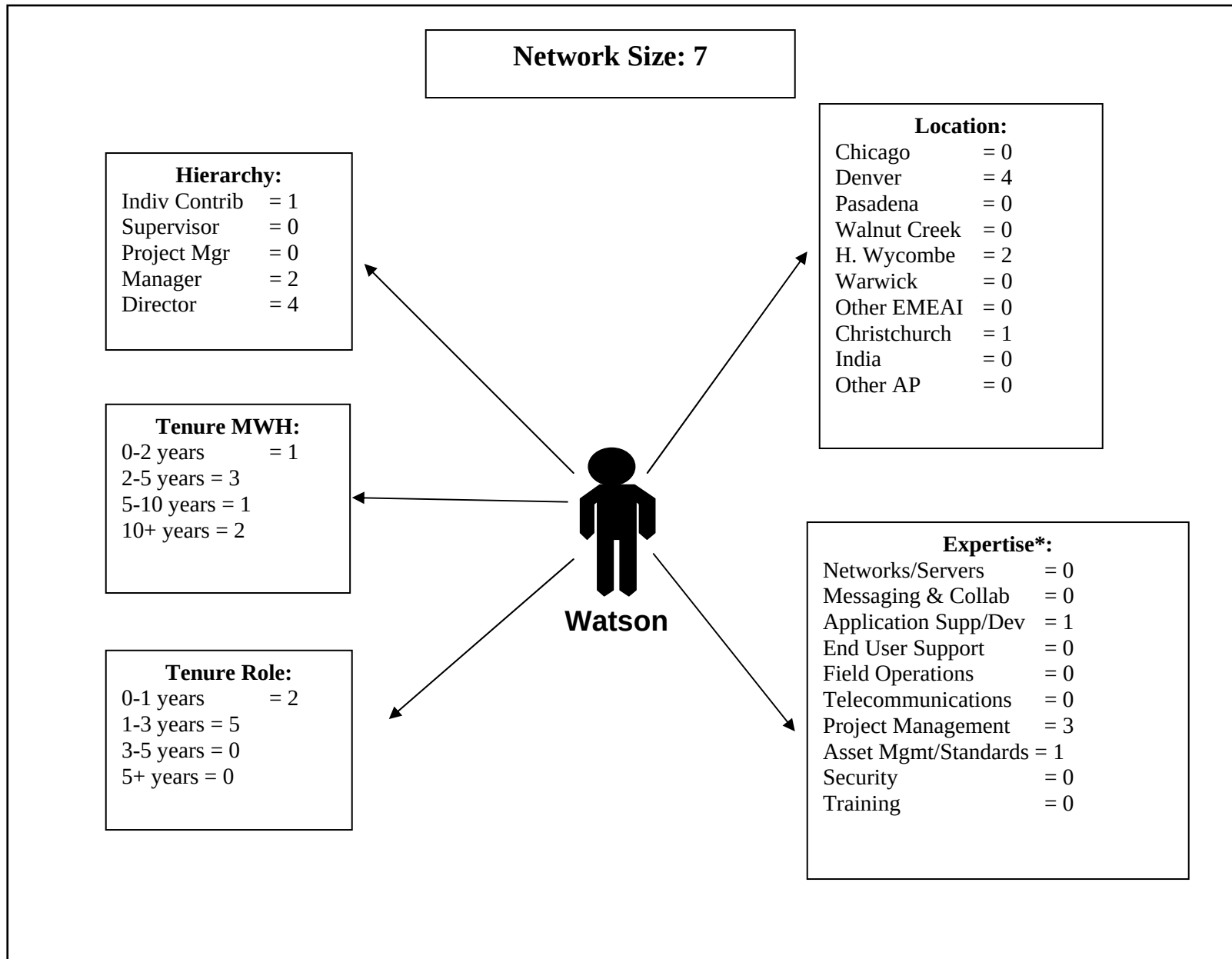


Exhibit 9
**BUILDING A NETWORKED ORGANIZATION:
 RESTRUCTURING IT AT ABC CONSULTING (A)**
 Bob Watson's Personal Network Profile
 (Numbers reflect quantity of relationships in each category)



Appendix A

Information Flow Network Question

Information Network Question

Often we rely on the people we work with to provide us with information to get our work done. For example, people might provide us with simple or routine administrative or technical information that we need to do our work. Alternatively people might provide us with complex information or engage in problem solving with us to help us solve novel problems.

Please indicate the extent to which the people listed below provide you with information you use to accomplish your work.

Response Scale:

Blank = I Do Not Know This Person/I Have Never Met this Person

1 = Very Infrequently

2 = Infrequently

3 = Somewhat Infrequently

4 = Somewhat Frequently

5 = Frequently

6 = Very Frequently

	Answer
Andrew Smith	
Brian Watts	
Colin Jones	
David Black	
Edward Collins	
Fiona Wright	
Gene Walker	
Helen Jones	
Ian Jenkins	
Jackie Cross	